



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,550	03/10/2004	Yulian Y. Borisov	663-004US	4411
22897	7590	02/13/2006		EXAMINER
DEMONT & BREYER, LLC				HWU, DAVIS D
SUITE 250				
100 COMMONS WAY			ART UNIT	PAPER NUMBER
HOLMDEL, NJ 07733			3752	

DATE MAILED: 02/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/797,550	BORISOV ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Davis D. Hwu	3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 January 2006.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 43-46 and 62-93 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 75-93 is/are allowed.
- 6) Claim(s) 43-46, 70, 71 and 74 is/are rejected.
- 7) Claim(s) 62-69, 72 and 73 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: Figure 1.

***Response to Amendment***

1. Applicant's amendment and remarks of January 24, 2006 are acknowledged and entered.
2. Applicant's remarks have been fully considered but are not found to be persuasive.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 102***

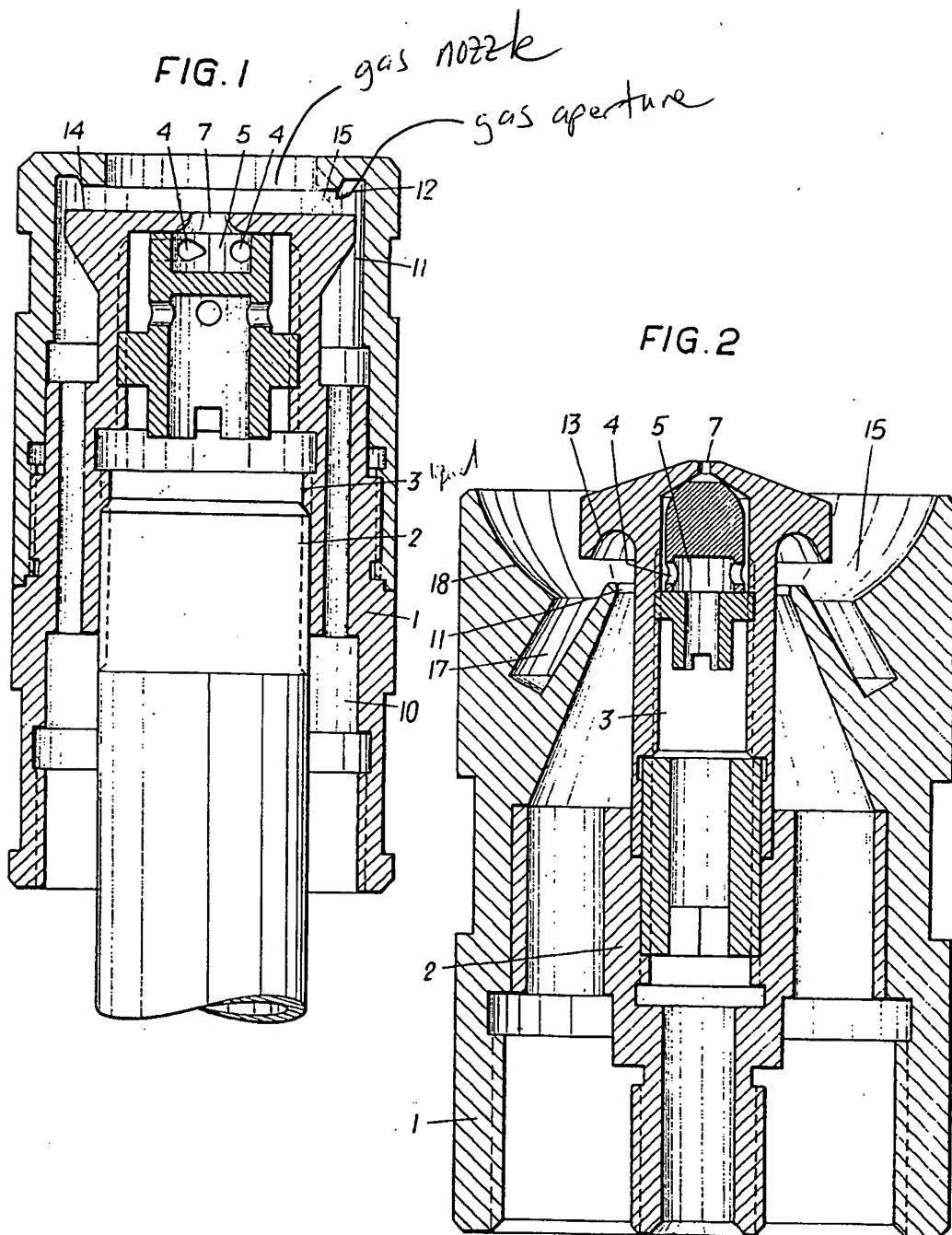
4. Claims 43-46, 70, 71, and 74 are rejected under 35 U.S.C. 102(b) as being anticipated by Wiesenberger.

Wiesenberger shows an apparatus comprising an atomizer (please refer to Figure 1 attached herein), wherein the atomizer comprises a body portion, wherein the body portion comprises a gas aperture, an annular gas cavity 15 receiving a flow of gas from the gas aperture, an annular gas nozzle receiving the flow of gas from the gas cavity, wherein a bulk of the flow of gas flows in a radial direction through the gas aperture, a bulk of the flow of gas flows in an axial direction through the gas nozzle. The atomizer further comprises a resonator 12 spaced apart from the gas nozzle as recited in claim 44 and the body portion comprises a liquid inlet disposed at a marginal region of the body portion, an annular liquid cavity 3 receiving a flow of liquid from the liquid inlet, and a liquid outlet 7 receiving the flow of liquid from the annular liquid cavity as recited in claim 45, and wherein the liquid outlet delivers the flow of liquid to an atomization region that is disposed proximal to the gas nozzle as recited in claim 46. The gas composition

PATENTED JUN 6 1972

3,667,679

SHEET 1 OF 3.



INVENTOR

JOSEF WIESENBERGER

BY  
Woodham, Blanchard & Flynn  
ATTORNEYS

as recited in claims 70 and 71 is a matter of intended use. The apparatus can also be used for fire suppression in which fire detection devices are known to be a critical part of such apparatuses.

***Allowable Subject Matter***

5. Claims 62-69, 72, and 73 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claims 75-93 are allowed.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davis D. Hwu whose telephone number is 571-272-4904. The examiner can normally be reached on 8:00-4:30. If attempts to reach the

examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on 571-272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Davis Hwu



**DAVIS HWU**  
**PRIMARY EXAMINER**